

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A method comprising:

performing an encoding transformation on a set of data representing a video frame as frame-based data and as field-based data to generate arrays of frame-based data and arrays of field-based data;

selecting either the arrays of frame-based data or field-based data based, at least in part, on the number of non-zero coefficients in the frame-based data and the field-based data; and

converting an ordering of the arrays of selected data.
2. (Original) The method of claim 1 wherein the encoding transformation is a discrete cosine transform (DCT) operation.
3. (Original) The method of claim 2 wherein the encoding transformation further comprises quantization of results of the DCT operation.
4. (Original) The method of claim 1 wherein selecting either the arrays of frame-based data or field-based data based, at least in part, on the number of non-zero coefficients in the frame-based data and the field-based data comprises:

comparing a macroblock of frame-based data to a macroblock of field-based data;
and
selecting the macroblock of data having the fewer number of non-zero
coefficients.

5. (Original) The method of claim 1 wherein converting an ordering of the
arrays of frame-based data coefficients and of the arrays of field-based data coefficients
comprises performing a zig-zag conversion wherein an 8x8 matrix having an original
order of:

0	1	2	3	4	5	6	7
8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23
24	25	26	27	28	29	30	31
32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47
48	49	50	51	52	53	54	55
56	57	58	59	60	61	62	63

are converted to having a scanning order of:

0	1	5	6	14	15	27	28
2	4	7	13	16	26	29	42
3	8	12	17	25	30	41	43
9	11	18	24	31	40	44	53
10	19	23	32	39	45	52	54
20	22	33	38	46	51	55	60
21	34	37	47	50	56	59	61
35	36	48	49	57	58	62	63

6. (Original) An article of manufacture comprising electronically-accessible medium to provide instructions that, when executed, by one or more processors, cause one or more electronic systems to:

perform an encoding transformation on a set of data representing a video frame as frame-based data and as field-based data to generate arrays of frame-based data and arrays of field-based data;

select either the arrays of frame-based data or field-based data based, at least in part, on the number of non-zero coefficients in the frame-based data and the field-based data; and

convert an ordering of the arrays of selected data.

7. (Original) The article of claim 6 wherein the instructions that cause the one or more electronic systems to perform encoding transformation comprise instructions that, when executed, cause the one or more electronic systems to perform a discrete cosine transform (DCT) operation on the data representing the video frame.

8. (Original) The article of claim 7 wherein the instructions that cause the one or more electronic systems to perform encoding transformation further comprises instructions that, when executed, cause the one or more electronic systems to perform quantization of results of the DCT operation.

9. (Original) The article of claim 6 wherein the instructions that cause the one or more electronic systems to select either the arrays of frame-based data or field-

based data based, at least in part, on the number of non-zero coefficients in the frame-based data and the field-based data comprises instructions that, when executed, cause the one or more electronic systems to:

compare a macroblock of frame-based data to a macroblock of field-based data;

and

select the macroblock of data having the fewer number of non-zero coefficients.

10. (Original) The article of claim 6 wherein the instructions that cause the one or more electronic systems to convert an ordering of the arrays of frame-based data coefficients and of the arrays of field-based data coefficients comprises instructions that, when executed, cause the one or more electronic systems to perform a zig-zag conversion wherein an 8x8 matrix having an original order of:

0	1	2	3	4	5	6	7
8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23
24	25	26	27	28	29	30	31
32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47
48	49	50	51	52	53	54	55
56	57	58	59	60	61	62	63

are converted to having a scanning order of:

0	1	5	6	14	15	27	28
2	4	7	13	16	26	29	42
3	8	12	17	25	30	41	43
9	11	18	24	31	40	44	53
10	19	23	32	39	45	52	54
20	22	33	38	46	51	55	60
21	34	37	47	50	56	59	61
35	36	48	49	57	58	62	63

11. (Original) An apparatus comprising:

means for performing an encoding transformation on a set of data representing a video frame as frame-based data and as field-based data to generate arrays of frame-based data and arrays of field-based data;

means for selecting either the arrays of frame-based data or field-based data based, at least in part, on the number of non-zero coefficients in the frame-based data and the field-based data; and

means for converting an ordering of the arrays of selected data.

12. (Original) The apparatus of claim 11 wherein the means for encoding transformation performs a discrete cosine transform (DCT) operation.

13. (Original) The apparatus of claim 12 wherein the means for encoding transformation further comprises means for quantization of results of the DCT operation.

14. (Original) The apparatus of claim 11 wherein the means for selecting either the arrays of frame-based data or field-based data based, at least in part, on the number of non-zero coefficients in the frame-based data and the field-based data comprises:

means for comparing a macroblock of frame-based data to a macroblock of field-based data; and

means for selecting the macroblock of data having the fewer number of non-zero coefficients.

15. (Original) The apparatus of claim 11 wherein the means for converting an ordering of the arrays of frame-based data coefficients and of the arrays of field-based data coefficients comprises means for performing a zig-zag conversion wherein an 8x8 matrix having an original order of:

0	1	2	3	4	5	6	7
8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23
24	25	26	27	28	29	30	31
32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47
48	49	50	51	52	53	54	55
56	57	58	59	60	61	62	63

are converted to having a scanning order of:

0	1	5	6	14	15	27	28
2	4	7	13	16	26	29	42
3	8	12	17	25	30	41	43
9	11	18	24	31	40	44	53
10	19	23	32	39	45	52	54
20	22	33	38	46	51	55	60
21	34	37	47	50	56	59	61
35	36	48	49	57	58	62	63